



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/931,073	08/15/2001	Goran Mork	CISCP697	2891
54406	7590	07/25/2006	EXAMINER	
AKA CHAN LLP / CISCO 900 LAFAYETTE STREET SUITE 710 SANTA CLARA, CA 95050			PHAN, HANH	
			ART UNIT	PAPER NUMBER
			2613	

DATE MAILED: 07/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

5/

Office Action Summary	Application No.	Applicant(s)	
	09/931,073	MORK ET AL.	
	Examiner	Art Unit	
	Hanh Phan	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is responsive to the Amendment filed on 05/10/2006.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 5-14, 16-25 and 27-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US Patent No. 5,937,000) in view of Weber et al (US Patent No. 6,922,431).

Regarding claims 1, 12 and 23, referring to Figures 1-4, Lee teaches in a communication system, a method for superimposing utility data (i.e., auxiliary information, Fig. 3) on a transmission channel (i.e., the combined signal including primary data and auxiliary information is transmitted via a transmitter 22, Figs. 1 and 3), the method comprising:

receiving utility data of the communication system from a utility data source (i.e., receiving an auxiliary information from input terminal 42, Figs. 1 and 3, see from col. 7, line 32 to col. 10, line 52);

spreading (i.e., pseudorandom sequence generator 48, Fig. 3) the utility data according to a spreading code to generate a spread spectrum signal (see from col. 7, line 32 to col. 10, line 52); and

modulating the transmission channel with a combination of the spread spectrum signal and a signal carrying payload data (i.e., the combined signal including primary data and auxiliary information is transmitted via a transmitter 22, Figs. 1 and 3, see from col. 7, line 32 to col. 10, line 52).

Lee differs from claims 1, 12 and 23 in that he does not specifically teach the transmission channel is an optical fiber channel. Lee teaches in column 8, lines 65-67 and col. 9, lines 24-28 that it should be appreciated that a wire channel (e.g., electrically conductive cable or fiber optic cable) can also be used. Weber in US Patent No. 6,922,431 teaches a communication using spread spectrum methods over optical fibers, and Weber further teaches the transmission channel is an optical fiber channel (i.e., Figs. 4a, 4b, 5a, 5b, 6a, 6b and 7, col. 6, lines 8-12, col. 7, lines 1-67, col. 8, lines 1-67 and col. 9, lines 45-67). Based on this teaching, it would have been obvious to one having skill in the art at the time the invention was made to incorporate the transmission channel is an optical fiber channel as taught by Weber in the system of Lee. One of ordinary skill in the art would have been motivated to do this since allowing to provide a communication system using spread spectrum method with high speed and high capacity.

Regarding claims 2, 13 and 24, the combination of Lee and Weber teaches adding the spread spectrum signal to the payload data signal to form a modulation

Art Unit: 2613

signal, and applying the modulation signal to input of an optical modulator that modulates the optical signal (i.e., col. 9 of Weber, lines 55-61).

Regarding claims 3, 14 and 25, the combination of Lee and Weber teaches wherein modulating comprises : adding the spreading spectrum signal to the payload data signal to form a modulation signal and driving a laser using the modulation signal so that the laser outputs the optical signal modulated with both the payload data and the utility data (i.e., Figs. 4a, 4b, 5a, 5b, 6a, 6b and 7 of Weber, col. 7, lines 1-67 and col. 8, lines 1-67).

Regarding claims 5, 6, 10, 11, 16, 17, 21, 22, 27, 28, 32 and 33, the combination of Lee and Weber teaches the utility data comprises a signal strength indication or firmware for updating operation of equipment of the optical fiber communication system (i.e., col. 2 of Lee, lines 29-46 and col. 7, lines 45-64).

Regarding claims 7, 9, 18, 20, 29 and 31, the combination of Lee and Weber teaches outputting a modulated optical signal wherein modulation due to the payload data and modulation due to the utility data overlap spectrally (i.e., from col. 7 of Lee, line 32 to col. 10, line 52).

Regarding claims 8, 19 and 30, the combination of Lee and Weber teaches an optical communication receiver, a method for recovering utility data from an optical signal, the method comprising:

accepting as input an optical signal modulated with payload data and the utility data (i.e., Fig. 4 of Lee and Figs. 4b, 5b and 6b of Weber);

multiplying an electrical signal derived from the optical signal by a spreading sequence to recover the utility data, the electrical signal carrying both the payload data and the utility data (i.e., Fig. 4 of Lee and Figs. 4b, 5b and 6b of Weber); and

recovering the payload data from the optical signal (i.e., Fig. 4 of Lee and Figs. 4b, 5b and 6b of Weber, and see from col. 7 of Lee, line 32 to col. 10, line 52 and see col. 7 of Weber, lines 1-67 and col. 8, lines 1-67).

Regarding claims 34-39, the combination of Lee and Weber teaches the optical signal comprises a WDM channel signal (i.e., 6 of Weber, lines 43-46 and col. 11, lines 46-67).

4. Claims 4, 15 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US Patent No. 5,937,000) in view of Weber et al (US Patent No. 6,922,431) and further in view of Kitajima et al (US Patent No. 5,515,196).

Regarding claims 4, 15 and 26, the combination of Lee and Weber differs from claims 4, 15 and 26 in that it does not specifically teach driving a laser using the spread spectrum signal and modulating output of the laser using the payload data signal. However, Kitajima in US Patent No. 5,515,196 teaches driving a laser using the spread spectrum signal and modulating output of the laser using the payload data signal (i.e., Fig. 2, col. 1, lines 58-67 and col. 2, lines 1-4). Based on this teaching, it would have been obvious to one having skill in the art at the time the invention was made to incorporate the driving a laser using the spread spectrum signal and modulating output of the laser using the payload data signal as taught by Kitajima in the system of the combination of Lee and Weber. One of ordinary skill in the art would have been

Art Unit: 2613

motivated to do this since allowing reducing non-linear optical effects and increasing the transmission quality of the system.

Response to Arguments

5. Applicant's arguments with respect to claims 1-33 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 2613

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Phan whose telephone number is (571)272-3035.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.


HANH PHAN
PRIMARY EXAMINER